

Date: Thu, 4 Aug 94 04:30:13 PDT  
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>  
Errors-To: Ham-Ant-Errors@UCSD.Edu  
Reply-To: Ham-Ant@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Ant Digest V94 #247  
To: Ham-Ant

Ham-Ant Digest                      Thu, 4 Aug 94                      Volume 94 : Issue 247

Today's Topics:

2m antenna on top of inverted V (2 msgs)  
2m antenna on VW Golf/GTi, where?  
??Loop or dipole ..BEST?? (2 msgs)  
Bonehead: How do you tune an antenna with a noise bridge?  
Inverted V's (3 msgs)  
Need advice on towers  
Need Simple UHF Antenna Design  
Rotator Advice Wanted  
Vertical antenna choice?  
What coax feed to use for 2m antenna

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>  
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 3 Aug 1994 16:22:28 GMT  
From: newsgw.mentorg.com!news@uunet.uu.net  
Subject: 2m antenna on top of inverted V  
To: ham-ant@ucsd.edu

Hello everyone,

I would like to mount a 2m antenna on top of the wood mast used for my  
inverted v HF dipole and have a couple of questions:

Will the presence of the antenna (I'm thinking about a basic ground plane  
vertical for the 2m antenna) interfere with the operation of the dipole?  
I use this dipole for 10 to 80 meters, with an emphasis on QRP CW

operation in the lower bands (80, 40, and 30 meters).

I'm feeding the dipole with ladder line run down one side of the mast.  
Can I run the coax for the 2m antenna down the other side, about 3" away?  
If this is too close, would 6" away work?

Or should I bag the whole idea and find a different place for my 2m antenna?

Thanks for any and all help!

73,  
Larry KB7ZNE/AA

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-----  
Larry Mull          | Tel (503) 685 1224      |  
Mentor Graphics Corp. | Fax (503) 685 1202      |  
Wilsonville, OR      | larry_mull@mentorg.com |  
=====
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Date: Thu, 4 Aug 1994 01:18:23 GMT  
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!europa.eng.gtefsd.com!  
newsxfer.itd.umich.edu!gumby!wmu-coyote!radams@network.ucsd.edu  
Subject: 2m antenna on top of inverted V  
To: ham-ant@ucsd.edu
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In article <3log84\$7ct@hpbab.mentorg.com>,  
Larry Mull, KB7ZNE/AA <larry\_mull@mentorg.com> wrote:

>Will the presence of the antenna (I'm thinking about a basic ground plane  
>vertical for the 2m antenna) interfere with the operation of the dipole?

Don't worry, Larry! One antenna won't even notice the other one's there.

Robert  
WA9ZM0

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Date: Wed, 3 Aug 1994 06:09:51 +0000  
From: pipex!demon!g4udt.demon.co.uk!Yves@uunet.uu.net  
Subject: 2m antenna on VW Golf/GTi, where?  
To: ham-ant@ucsd.edu
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I use a Diamond hatch mount on the top right hand corner of the hatch.  
I usually use a 5 foot long 70cms triple 5/8ths antenna and its been  
good even at high speeds (120 mph).

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Yves Remedios

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Date: 3 Aug 1994 00:43:02 -0400  
From: peach!atl1!w4qo@uunet.uu.net  
Subject: ??Loop or dipole ..BEST??  
To: ham-ant@ucsd.edu

I'd vote for the loop.

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Date: Wed, 3 Aug 1994 16:38:19 GMT  
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!europa.eng.gtefsd.com!newsxfer.itd.umich.edu!gumby!wmu-coyote!radams@network.ucsd.edu  
Subject: ??Loop or dipole ..BEST??  
To: ham-ant@ucsd.edu

In article <w4qo.775888942@atl1>,  
James C. Stafford <w4qo@peach.america.net> wrote:  
>I'd vote for the loop.

Screw the loop! I'll take a folded dipole any day.

-----  
Date: Wed, 3 Aug 1994 17:29:58 GMT  
From: news!jerald@uunet.uu.net  
Subject: Bonehead: How do you tune an antenna with a noise bridge?  
To: ham-ant@ucsd.edu

I may be displaying extreme ignorance here but....

I've been told that some hams use a noise bridge to tune their antenna using a transmatch. This has the advantage of not generating qrm while you get the antenna to resonance.

How the heck do you do that?

In my case I have a MFJ antenna tuner that shows forward and reflected power (and hence SWR). If I hook a noise bridge in in front of the tuner it certainly not going to put out enough energy to drive the swr meters.

Do I need one of those gadgets than measure antenna impedance? If so, could someone point me a plans/kits for one (I've bought my last mfj)?

Many Thanks,  
Jerry Pendleton

--

Jerald R. Pendleton Email: jerald@wrs.com, Personal Email: jrpend@netcom.com  
The preceeding message represents only the opinon of the author. This  
do not represent the opinions/positions of Wind River Systems, my mother,  
my wife or my poodle.

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Date: Wed, 3 Aug 1994 00:40:24 GMT  
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!gatech!news-feed-1.peachnet.edu!  
news.duke.edu!eff!news.kei.com!ub!freenet.buffalo.edu!an810@network.ucsd.edu  
Subject: Inverted V's  
To: ham-ant@ucsd.edu

A center-fed full wave dipole will be a nightmare to feed!  
This arrangement puts a current null/voltage maximum at the feed  
point. The impedance is 1000's of ohms, and your transmitter will  
be very unhappy! If you want to put up a full wave of wire, you  
can feed it 1/4 wave from one end and get good SWR. Better yet,  
make it a closed loop 1/4 wave on a side, if you have the ability  
to get it in the air. All these have some gain over a 1/2 wave  
dipole. That means you will do better in some directions and worse  
in others. Good luck!

73, Bruce KM2L

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Date: 3 Aug 1994 10:18:54 GMT  
From: ihnp4.ucsd.edu!agate!usenet.ins.cwru.edu!ns.mcs.kent.edu!kira.cc.uakron.edu!  
malgudi.oar.net!infinet!wvanho@network.ucsd.edu  
Subject: Inverted V's  
To: ham-ant@ucsd.edu

Al -

The "Multiple Vee Beams" article was in QST August, 1956.

Another that might be of interest is:  
HAM RADIO, May 72: "Sloping Vee-Beam Antenna".

Good luck.

73, Van - W8UOF

\* \* \* \* \*  
\* It ain't wot ya don't know 't gets ya into trouble. \*  
\* It's wot ya know 't ain't true. - "Mr. Dooley" \*  
\* \* \* \* \*

wvanho@infinet.com

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Date: 3 Aug 1994 10:11:52 GMT  
From: ihnp4.ucsd.edu!agate!usenet.ins.cwru.edu!ns.mcs.kent.edu!kira.cc.uakron.edu!  
malgudi.oar.net!infinet!wvanho@network.ucsd.edu  
Subject: Inverted V's  
To: ham-ant@ucsd.edu

Allan BA Schlaugat (AllanWS@cup.portal.com) wrote:  
: In the same vein, am I overlooking any other 'DX' antennas I could  
: build with my single 100ft tower as a support? I have the room to  
: stretch out (55 acres) but no supports (trees, towers, poles) other  
: than the single 100 footer and a 50 foot TV tower next to the house.  
: Thanks! 73 Al N9ISN allanws@cup.portal.com

Al -

Have you considered gain antennas? In your situation, you have a perfect opportunity to erect a "Maypole" of sloping vee beams, selectable by switches or relays, to put main lobes all around the compass. Since you are only interested in one band, it would be easy to design. By switching the wires to select pairs either forming vees, or in-line, you could switch from a beam to a dipole configuration, at will.

Plain vees are bidirectional, but there is a way to make them unidirectional with high FB ratios. As I remember it, the main beam goes to the top of the tower, then below it, a second vee is strung, cut either a quarter- or half-wavelength shorter. I think the shorter wires are parasitic, not driven.

There was an article printed many, many years ago about an installation like this. He had a true maypole, with several switchable, unidirectional beams. I made a quick check of the FBT0 index and found two articles in QST that are pertinent; perhaps one or the other is the one I remember. Try:

QST Aug 65: "2-Element 10, 11, 15, 20 Meter Rotatable Vee Beam"

QST 56: "Multiple Vee Beams"

(I didn't note the month. After this message, I will look it up again and immediately post a second message.)

73, Van - W8UOF

\* \* \* \* \*  
\* It ain't wot ya don't know 't gets ya into trouble. \*  
\* It's wot ya know 't ain't true. - "Mr. Dooley" \*  
\* \* \* \* \*

wvanho@infinet.com

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Date: Wed, 3 Aug 94 12:03:00 -0500  
From: ihnp4.ucsd.edu!news.acns.nwu.edu!math.ohio-state.edu!howland.reston.ans.net!  
agate!iat.holonet.net!cencore!forrest.gehrke@network.ucsd.edu  
Subject: Need advice on towers  
To: ham-ant@ucsd.edu

MD>by the way, I am using Phillystrand non-conductive guys. This is a nice  
MD>product, but more expensive than the standard galvanized guy wire. If  
MD>you use galvanized guy wire plan on replacing it every seven to ten years.  
MD>I know a few people that had tower up over ten years and the guy wires  
MD>rusted and broke. Phillystrand told me they expect a 30-year life out of  
MD>their product. I think I am spelling the name wrong. The tower suppliers

There is such a thing as stainless steel stranded guy wire.  
One of the advantages of a metal guy wire is that it is  
less subject to abrasion.

Regarding grounding of towers: It is dangerous to use a single  
separate grounding for towers, e.g. connecting a heavy wire to a  
tower leg and then to a ground stake. It is far safer to extend  
heavy ground wires from the steel tower anchors embedded in the  
concrete base all the way below the concrete to stakes driven at  
the bottom of the hole. Obviously this must be done before pouring  
concrete.

There have been instances of concrete bases being blown apart  
by a lightning hit which is trying to find ground through  
the concrete (and not finding it). A poorly grounded  
tower also facilitates more of the lightning current  
travelling through the coax to your shack. A heavy strike  
won't prevent some of that from coming into the shack,  
nevertheless.

A further precaution (which unfortunately I failed to have  
in a recent strike) is to have a gas tube surge protector  
on the coax line before getting to your equipment. See  
p. 113 in the Aug. QST for an example of this protection.

With towers already constructed where the above had not been done the best alternative is to use very heavy wire CLAMPED to each tower leg and going to separate copper stakes. Wire size should be at least #6.

---k2bt

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≥ SLMR 2.1a ≥ NEVER go to a proctologist who can palm a basketball!

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Date: Thu, 4 Aug 1994 01:24:18 GMT  
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!europa.eng.gtefsd.com!newsxfer.itd.umich.edu!gumby!wmu-coyote!radams@network.ucsd.edu  
Subject: Need Simple UHF Antenna Design  
To: ham-ant@ucsd.edu

In article <1994Aug3.182952.26995@ulb.isc.rit.edu>, sparky <jge8874@ritvax.isc.rit.edu> wrote:  
>I'm looking for a simple UHF antenna, designed specifically for  
>channel 68, which operates at 794 - 800 MHZ. I live at least  
>60 miles from the transmitting antenna. Thanks for your help.

Not asking for much, are we? <g> What you want has no simple solution... other than suggesting some extant commercial TV antenna.

Robert  
WA9ZMO

\* If Clinton is the answer, I shudder at the question.

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Date: Tue, 2 Aug 1994 14:55:34 GMT  
From: ncrw2.ncr.com!ncrhub2!ncrcae!news@uunet.uu.net  
Subject: Rotator Advice Wanted  
To: ham-ant@ucsd.edu

>In article <6e.1439.719.0N66678A@cencore.com> Forrest Gehrke writes:  
>I have sustained a lightning strike on my tower which  
>has destroyed the rotator and its control (along with  
>nearly every electronic piece of equipment in the  
>house).

You have my sympathy. I just had the same thing happen to me, and Kenwood is running 3 weeks behind on repairs. I suspect I will get a 'non repairable' letter from Kenwood on the 3 units I sent, but it will take

even

longer now to get my cash to get replacement radios. Plus, the repairs to the TV's and microwave have already come out of my pocket.

>I have never seen the Yaesu rotators and haven't any

>idea of what experience with them would show.

>Anyone out there with that experience who has a

>fair size array? Any other rotators I should be

>looking at?

>

>---k2bt

>---

I have heard some good things about the Orion rotors sold by Mike Stahl of M2. My friend ERic WB4QNP used one to handle a Cushcraft 402CD, an A3WS and a DXEngineering 6 element 20m (60 ft boom) with no problem. Apparently, besides being hefty they have a 'shock absorber' in the design that really improves the reliability. The control circuit is supposedly very accurate with the heading readout. Eric did do something else that may improve the situation: he uses double thrust bearings to make rotor replacement easier (not necessary any more with the Orion rotor, he says). Of course, double thrust bearings will not do anything

to reduce torque...just reduce thrust (for those not familiar with thrust bearings) on the rotor and housing.

The Orion info is (best as Eric can remember from our phone conversation):

part number OR2800P -- rated 35 sq ft

1700 in lbs turning torque

30k in pounds beaking torque

uses worm gear drive instead of brake

73,Tom WB4iUX (Tom.Skelton@ClemsonSC.NCR.COM)

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Date: Wed, 3 Aug 1994 06:12:46 +0000

From: pipex!demon!g4udt.demon.co.uk!Yves@uunet.uu.net

Subject: Vertical antenna choice?

To: ham-ant@ucsd.edu

I prefer choice A. It is always better to have a resonant antenna.

I can't see that the 15 foot pipe is resonant on any bands.

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Yves Remedios

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Date: Tue, 2 Aug 1994 17:27:24 GMT  
From: ihnp4.ucsd.edu!usc!math.ohio-state.edu!jussieu.fr!univ-lyon1.fr!  
swidir.switch.ch!newsfeed.ACO.net!Austria.EU.net!EU.net!sunic!seunet!  
kullmar!suncd!m8627@network.ucsd.edu  
Subject: What coax feed to use for 2m antenna  
To: ham-ant@ucsd.edu

In article <cc09Pc3w165w@jackatak.raider.net>, Jack GF Hill wrote:  
> 3) PL-259 connector, \*PROPERLY INSTALLED\* are the equal of the "N"  
> well into the gigahertz region -- Al, N1AL ran some tests on some  
> "upscale" Hewlett-Packard gear and confirmed this a year ago...

Nice to hear since many manufacturers still use this connector on  
antennas and this way force us to use it. I've seen it on a  
discone specified to work up to 700MHz!

> 4) Not many can PROPERLY install a PL-259, which furthers the myth of  
> their poor performance, and really makes weather a problem.

My experience is that the crimp version is possible to assemble  
properly, but I have never been able to use the solder version  
without frying the cable. How do you do it?

/Mats

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Mats Persson      Internet      : m8627@suncd.abc.se  
SM000M            Packet Radio : SM000M@SM0ETV.STHLM.AB.SWE.EU  
                  Fidonet        : 2:201/235  
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End of Ham-Ant Digest V94 #247

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